# BRUHAT BANGALORE MAHANAGARA PALIKE

## Yelahanka Zone, Electrical Division

**Name of work :-** Detailed Estimate for Providing LED Street lights/Control switches/control wires at Dark/vulnerabale places in Ward no 01,02,03 & 04.

**Budget Head**

**Ward No.** **Estimate No..** **For Rs** **13200000.00**

| Sl No | SR Page no | Description Of Work | Unit | Qty | Rate | Amount |
|---|---|---|---|---|---|---|
| 1 | 66/12.8.4 | Supply of LED Streetlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate material, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, maximum light intensity should be between 60 degrees to 70 degrees. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains. Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mouting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with W System Power consumption. LED Efficiency>130lm/w, nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source.LED Streetlight 90 Watts | Nos | 1150 | 7160.00 | 8234000.00 |
| 2 | 79/14.12 | Supplying and Fixing of. mm dia class A GI pipe bracket up to 2 Mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires.Using 32mm dia G.I.Pipe | Each Nos | 1127 | 835.00 | 941045.00 |
| 3 | 79/14.5 | Fixing halogen/metal halide / SVL / IL / LED floodlight fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires. | Each Nos | 1150 | 175.00 | 201250.00 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4 | 7/2.7.1 | Wiring for lighting/power circuit using one of PVC insulated 1100V grade, stranded Aluminium wire single core in open or concealed system of wiring.4 sqmm | Mtrs | 4000 | 9.00 | 36000.00 |
| 5 | 26/5.14.1 | Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts, necessary phase separators, handle and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947. ( Icu = Ics) 100Amps 25kA. | Each Nos | 55 | 4530.00 | 249150.00 |
| 6 | 31/5.43.2 | Supply and Installation / Fixing / Provision of Pole box with HRC Fuse / MCB provision and suitable connector / terminal for 3 Ph / 1 Ph connections with Loop-In & Loop- Out terminals for 10 Sqmm / 25 Sqmm 3.5 C Al/Ar / Cu/ Ar Cable and branch out 2.5 Sqmm 2 core Al/Cu PVC Insulated cable, enclosed in a Thermoplastic, Polystyrene enclosure, which should be shock proof, safe, IP65(Weather Proof), rust proof, dust proof, water proof having Internally Embedded Gasket with provision for cable entry through IP65 Thermoplastic, polyamide glands and/or grommets.260mmx210mmx116mm | Each Nos | 55 | 2054.00 | 112970.00 |
| 7 | 40/6.4.4 | Supplying of 1.1 KV LT UG cable XLPE or Heat resistant PVC insulated, PVC extruded Inner sheath armoured UG LT cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness in average +5% and resistivity 14 Ohms/Kms (Max) as per IS-3975 4 core 16 sqmm | Mtrs | 600 | 150.00 | 90000.00 |
| 8 | 41/6.5.6 | Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.On wall /Structure 6 sqmm to 16 sqmm | Mtrs | 600 | 30.00 | 18000.00 |
| 9 | 31/5.44.2 | Supply and Installation / Fixing / Provision of Outdoor type Thermoplastic Modular Panel enclosure with transparent Polycarbonate Lid, shock proof, IP65 (Weather Proof), rust proof, dust proof, water proof, corrosion proof having internally Embedded gasket on both lid and flap suitable to fix Single Phase / Three Phase Energy Meter in suitable base plate and having a provision for Fuse / MCB cutout with suitable transparent hinged flap opening for operating MCB along with complete tamper proof SEALING facility 300mmx450mmx214mm | Each Nos | 40 | 5127.00 | 205080.00 |

Executive Engineer

Palike

| | | | | | | |
|---|---|---|---|---|---|---|
| | 27/5.17.3 | Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.50-63 Amps SP | Each Nos | 40 | 723.00 | 28920.00 |
| 11 | 26/5.13.4 | Supply and fixing of 4pole power contactor with NO/NC contacts on existing wood/panel board using necessary bolts, nuts, washers and wiring etc., complete with AC-3 Rating and as per IS-13947.100 to 125Amps | Each Nos | 40 | 7200.00 | 288000.00 |
| 12 | 29/5.28 | Supplying, fixing and wiring rotary selector switch suitable for Voltmeter.(Togal switch) | Each Nos | 40 | 135.00 | 5400.00 |
| 13 | 75/6.3.1 | Supplying and running of GI/Copper strips for grounding connections, using necessary fixing materials as required.25x3mm GI strip | Mtrs | 16 | 75.00 | 1200.00 |
| 14 | 6/2.3.3 | Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS-694:confirming to latest amendments.6 sqmm | Mtrs | 20 | 70.00 | 1400.00 |
| 15 | 43/6.17.4 | Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes.6 sqmm | Each Nos | 200 | 7.00 | 1400.00 |
| | | BESCOM SR 2018-19 | | | | 0.00 |
| 16 | 1/1.01 | Supply of RCC Pole - 9 Mtr Long, 145 Kg WL (Dwg No BESCOM/GM/QS&S/02 Dtd 24.11.2018) as per IS-785 | Nos | 4 | 6258.00 | 25032.00 |
| 17 | 1/1.1 | Digging of Pits 1.8 mtr depth for errection of 9 to 10 mtr Long Steel/RCC/PSC supports as per approved Drawing 1)Ordinary Soil | Per pit Nos | 4 | 416.00 | 1664.00 |
| 18 | 1/2.07 | Supply of LT 2 Pin X Arms - MS (Dwg No. BESCOM/GM/QS&S/32 Dtd 24.11.2018) | Nos | 4 | 87.00 | 348.00 |
| 19 | 2/2.01 | Erection of steel supports 9.0 to 10.00 mtr long such as 22.68 kg (50 lbs) Rail, 27.22 kg (60 Lbs) Rail I Beam of sizes 200x100mm, 175x90 mm, 125x100 mm. Fabricates poles tubular poles in pits of 1.8 mtr Depth. Aligning, Refilling with soil and ramming as approved drawing | Nos | 4 | 334.00 | 1336.00 |

Executive Engineer
Electrical Division
Bruhath Bengaluru Mahanagara Palike

| | | | | | | |
|---|---|---|---|---|---|---|
| 20 | 145/300 /41.07 | 1.1 kV, LT Aerial Bunched Cable, confirming to IS-14255: 1995 XLPE insulation Parameter shall be as below<br>1. Hot Set Test<br>a) Elongation under Load: 50% (Max)<br>b) Permanent Elongation After Cooloing: 3% (Max)<br>2. Thermal Aging in oven:<br>a) Tensile Strength: 16 N/mm² (Min)<br>b) Elongation: 375% (Min)<br>3. Water Absorption Test<br>a) Water absorbed: 0 5 mg/cm² (Max)<br>4. Carbon Black Content shall be ranging from 2% to 3%<br>3x25 + 1x25 + 1x16 Sqmm Street light (Insulated Messenger cum Neutral) | KM | 4.00 | 147000.00 | 588000.00 |
| 21 | 224/270 /34.04 | Stringing of 1.1 kV grade Aerial Bunched 3 Core cable of XLPE insulation of size (3x95) (Phase Conductor) + (1x70) (Insulated Messenger Neutral) + (1x25) (Street Light Control) | KM | 4.00 | 22469.00 | 89876.00 |
| | | **Total Rs** | | | | 0.00 |
| | | Add 12% GST | | | | 11120071.00 |
| | | Tender Premium 5% | | | | 1334408.52 |
| | | PMC Charges 1% | | | | 613520.48 |
| | | Mislenious Charges | | | | 132000.00 |
| | | **Total Rs** | | | | 0.00 |
| | | | | | | 13200000.00 |

Technically Sanctioned for Rs. 1,32,00,000/-
Rs. In Words One Crore thirty two lakhs only
Under grant availed
Job Code No: Awaited as per Comm. Order Vide no. ಮು.ಕ/ಪ.ಆರ್/93/2021-22, Dt. 06-07-2021
Registered as EIC No. 07 / 21-22 Subject to conditions contained in Enclosed Memo No. 07 / 21-22 Dt. 5/1/22
AEiJE. TA

**CERTIFICATE :-**

1. The place was inspected and the work is essential.
2. The provision made in the estimate are adequate and necessary and the work comes in the BBMP limit and is legitimate Charges on the BBMP funds.
3. The estimate is based on KPWD (Ele) S.R.of 2019-20 &BESCOM Sr 2018-19
4. This work is not taken up in any other previous work

Assistant Engineer (Ele)
Yelahanka Zone

Assistant Executive Engineer (Ele)
Yelahanka Zone

Executive Engineer (Ele)
Yelahanka Zone, BBMP

Administrative Sanction for Rs. 1,32,00,000/-
One Crore thirty two Lakh only
is accorded under head P.182 Provision of Additional Fittings Street lights
Registered as EE No. 116 / 117 Subject to conditions contained in enclosed memo No. BBMP/Ele/Yz/HS/01/2022-23 Dt 04.04.2022
Executive Engineer